Maternal and Child Health Data Indicators in Louisiana: 2008 Preliminary Report

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MCH Epidemiology Unit

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Louisiana Outcome Measures

	2005	2006	2007
Infant Mortality Rate (IMR)	10.1	10.0	9.0
Ratio of Black to White IMR	2.1	2.5	2.2
Perinatal Mortality Rate	7.0	7.5	6.1
Neonatal Mortality Rate	5.8	6.2	5.2
Post-neonatal Mortality Rate	4.3	3.9	3.8
Child Death Rate	32.2	25.5	27.7

Louisiana ranked 49th in 2006 for IMR

MCH Performance Measures

	2006	2007	target
The percent of screen positive newborns who received timely follow up to definitive diagnosis and clinical management for condition(s) mandated by their newborn screening program	99.1	97.9	99.0
Percent of 19 to 35 month olds who have received full schedule of age appropriate immunizations	72.3	77	84.0
The teen birth rate (per 1,000) aged 15 through 17 years	30.0	30.6	25.0
Percent of third grade children who have received protective sealants on at least one permanent molar tooth	18.0	18.0	20.0
The rate of deaths to children aged 14 years and younger caused by motor vehicle crashes (per 100,000 children)	4.8	5.7	4.0
The percent of mothers who breastfeed their infants at 6 months of age	21.8	21.8	15.6
Percentage of newborns who have been screened for hearing before hospital discharge	95.9	96.6	98.0

MCH Performance Measures

	2006	2007	target
Percent of children without health insurance	16.7	12.3	9.0
Percentage of children, age 2 to 5 years, receiving WIC services with a BMI at or above the 85th percentile		13.8	12.0
Percentage of women who smoke in the last trimester	16.6	16.6	13.5
Rate of suicide deaths among youth age 15-19 (per 100,000)	5.6	7.7	8.8
Percent of very low birth weight infants delivered at facilities for high-risk deliveries and neonates	88.4	87.8	90.0
Percent of infants born to pregnant women receiving prenatal care beginning in the first trimester	87.1	86.9	87.0

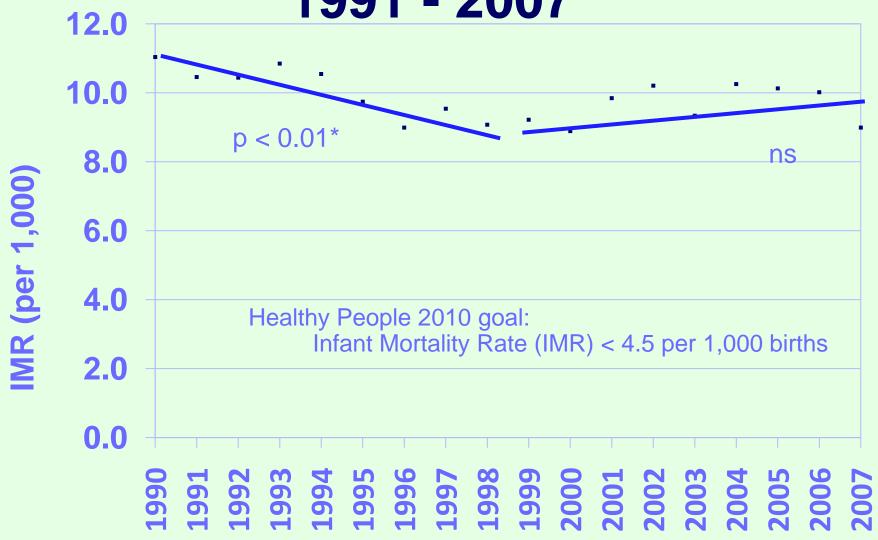
MCH Performance Measures

	2006	2007	target
Percent of women in need of family planning services who have received such services	17.7	18.8	25.0
Rate of children (per 1,000) under 18 who have been abused or neglected	9.2	9.9	8.7
Percent of women who use alcohol during pregnancy	6.8	8.9	5.0
Rate of infant deaths due to Sudden Infant Death Syndrome	0.9	1.3	0.8
Percent of state fetal and infant deaths reviewed by a Feto- Infant Mortality Review (FIMR)			15.0
Percent of licensed day care centers with a health consultant contact	32.4	85.4	40.0
Percent of Louisiana resident women giving birth who undergo screening for substance use, depression, and domestic violence using the SBIRT-HBE approved methods			

Common MCH Indicators

	2005	2006	2007
Prenatal Care Entry	87.1	87.1	86.9
Prenatal Care Adequacy	85.0	85.1	85.1
Low Birth Weight	11.5	11.4	11.3
Preterm Births (<37 weeks)	13.8	13.7	13.0
Very Low Birth Weight	2.3	2.2	2.2
Very Preterm Births (<32 wks)	2.6	2.4	2.4
Teen Birth Rate	49.6	54.9	55.9

Louisiana Infant Mortality Trend 1991 - 2007



Louisiana Infant Mortality

All Races, 2001-2007

Region	2001	2002	2003	2004	2005	2006	2007
1 (N. O.)	9.6	10.5	10.3	10.1	9.9	8.3	8.0
2 (B. R.)	10.3	9.5	8.0	10.6	10.7	10.7	11.0
3 (Houma)	10.1	10.1	7.9	10.0	6.6	10.4	7.0
4 (Lafayette)	10.1	10.3	10.2	9.6	11.9	11.9	8.0
5 (Lake Charles)	9.7	9.8	7.1	7.1	9.2	11.1	8.8
6 (Alexandria)	9.9	9.8	8.6	11.3	10.0	8.8	9.1
7 (Shreveport)	11.2	12.7	9.9	12.0	12.0	10.5	11.8
8 (Monroe)	10.1	12.2	11.9	11.4	12.8	10.7	12.0
9 (Northshore)	7.5	6.8	8.3	11.2	6.8	7.9	5.8
Louisiana	9.8	10.2	9.3	10.4	10.1	10.0	9.0
US	6.9	7.0	6.9	6.8	6.9	6.7	6.8

Louisiana Infant Mortality

White, 2001-2007

Region	2001	2002	2003	2004	2005	2006	2007
1 (N. O.)	5.1	7.4	6.1	8.1	7.3	6.7	6.5
2 (B. R.)	7.3	5.3	4.7	7.6	4.8	4.8	6.1
3 (Houma)	8.3	5.8	6.9	7.2	4.8	6.8	5.3
4 (Lafayette)	6.4	5.6	9.1	7.2	7.8	6.9	5.9
5 (Lake Charles)	8.3	7.9	5.4	6.8	6.6	8.3	7.1
6 (Alexandria)	4.4	6.8	7.7	8.4	7.6	5.6	7.7
7 (Shreveport)	5.7	7.4	4.9	6.5	9.0	6.1	5.9
8 (Monroe)	7.5	11.1	5.4	8.7	8.3	8.1	8.0
9 (Northshore)	6.4	6.3	6.4	8.4	4.3	5.4	5.1
Louisiana	6.5	6.9	6.4	7.7	7.1	6.4	6.2
US	5.7	5.8	5.7	5.7	5.7	5.6	5.7

Louisiana Infant Mortality

Black, 2001-2007

Region	2001	2002	2003	2004	2005	2006	2007
1 (N. O.)	12.5	12.9	13.4	12.1	12.7	10.4	10.7
2 (B. R.)	13.6	13.9	12.0	14.0	13.7	16.6	15.9
3 (Houma)	13.8	18.3	10.6	16.6	9.7	18.0	10.6
4 (Lafayette)	16.7	19.6	12.8	14.4	19.7	20.3	12.1
5 (Lake Charles)	14.1	15.8	11.6	8.7	17.2	18.9	14.6
6 (Alexandria)	20.3	15.9	11.1	17.5	15.9	16.0	12.9
7 (Shreveport)	17.8	19.0	16.1	18.7	15.7	15.5	18.7
8 (Monroe)	13.2	13.2	19.8	14.6	18.3	14.0	16.7
9 (Northshore)	11.8	7.3	15.8	21.0	16.7	17.0	9.1
Louisiana	14.4	15.0	13.8	14.7	15.1	16.0	13.8
US	14.0	14.4	14.0	13.8	13.7	13.3	13.3

Leading Causes of Infant Mortality

	2005	2006	2007
Conditions Originating in the Perinatal Period (1)	4.5	4.9	4.0
Congenital Malformations, Deformations, and Chromosomal Abnormalities (2)	1.9	1.9	1.3
SIDS (3)	1.3	0.9	1.3
Unintentional & Intentional Injury: External Causes of Mortality (4)	0.6	0.7	0.6

Rates represent deaths per 1,000 live births; Cause-specific ranking indicated in parentheses

Leading Causes of Infant Mortality (NCHS 2006)

	LA	US
Disorders related to length of gestation and LBW (P07)	2.2	1.1
Congenital Malformations, Deformations, and Chromosomal Abnormalities (Q00-Q99)	1.9	1.4
SIDS (R95)	0.9	0.6
Unintentional Injury (V01-X59)	0.5	0.3

Rates represent deaths per 1,000 live births

MCH Needs Assessments

2005

- Infant Mortality
- Injury
- Access to care
- Mental Health
- Substance Use
- Care for CSHCN
- Preconception care
- Oral Health
- Nutrition
- Data

2010

- Infant Mortality (PTB)
- Injury
- Pre/Interconception Care
- Pregnancy intention/spacing
- Care coordination for CSHCN
- Nutrition: obesity/breastfeeding
- Cultural competence
- Oral Health
- Behavioral Health
- Adolescents/CSHCN

Preconception Behaviors

Before you got pregnant with your new baby, did you talk with a doctor, nurse, or other health care worker to prepare for a healthy pregnancy and baby?

During the month before you got pregnant with your new baby, how many times a week did you take a multivitamin or prenatal vitamin?

		Counseled		Vitamin Use	
			Every day	4-6 days/wk	1-3 days/wk
	Year	%	%	%	%
All Races	2004	24.2	23.4	5.1	7.1
	2007	24.5	22.9	5.0	7.8
White	2004	29.1	27.7	6.2	6.5
	2007	24.8	24.0	5.6	7.8
Dlook	2004	40.0	40.0	0.4	0.4
Black	2004	16.2	16.3	3.4	8.4
	2007	24.3	21.6	3.6	8.0

Louisiana PRAMS, 2004-2007

Pregnancy Intention in Louisiana

Thinking back to *just before* you got pregnant with your *new* baby, how did you feel about becoming pregnant? I wanted to be pregnant:



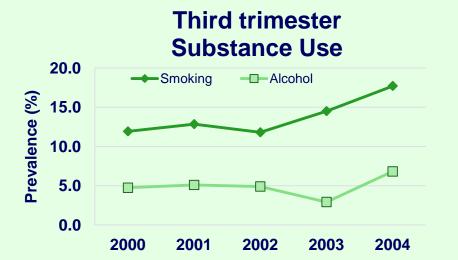
About 38% of women reported that they were trying to get pregnant Louisiana PRAMS data, 2004-2007

Maternal Comorbidity

(present during pregnancy)

		High Blood Pressure	Pre-preg Diabetes	Gestational Diabetes	Overweight	Obese
	Year	%	%	%	%	%
All						
Races	2004	14.5	1.9	10.3	11.3	26.4
	2007	16.3	1.5	8.2	10.5	26.2
White	2004	13.5	1.3	11.0	9.4	23.2
	2007	16.1	1.0	8.5	9.3	21.7
Black	2004	16.9	3.0	8.7	14.8	32.5
	2007	16.9	2.3	7.4	11.7	32.7

Substance Use

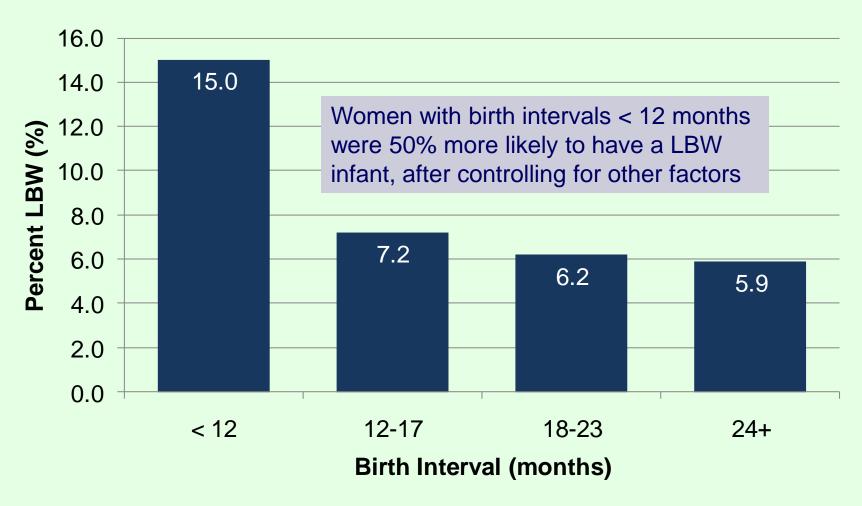


			alcohol use by race			
Prevalence (%)	8.0					
	6.0	\lambda	→			
	4.0					
	2.0					
		→ All Races	→ White → Black			
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\neg		2001-2	2003-4			

2000-2004	Smoking	Alcohol
Reporting Source	%	%
Birth certificate	8.74	0.32
LA PRAMS	13.38	4.71
Combined estimate	14.65	4.90
Capture-recapture	15.66	11.72

Louisiana SBIRT 2008 data: 6% used alcohol and 19% used cigarettes during pregnancy

Pregnancy Spacing and LBW



Risk factors for spacing < 12 months: black, less education, younger, Medicaid Louisiana birth cohort data, 2000-2002

Modifiable Risk Factors for

Moderate Preterm Birth Very Preterm Birth

Partner abuse Low weight gain

Hypertension Hypertension

Pregnancy spacing Pregnancy spacing

Prenatal care adequacy Prenatal care adequacy

Substance use, stressful life events, and pre-pregnancy BMI were not significant after controlling for other factors

Almost 1 in 3 births following a PTB were preterm (31.6%)

4 times as likely that second will be preterm

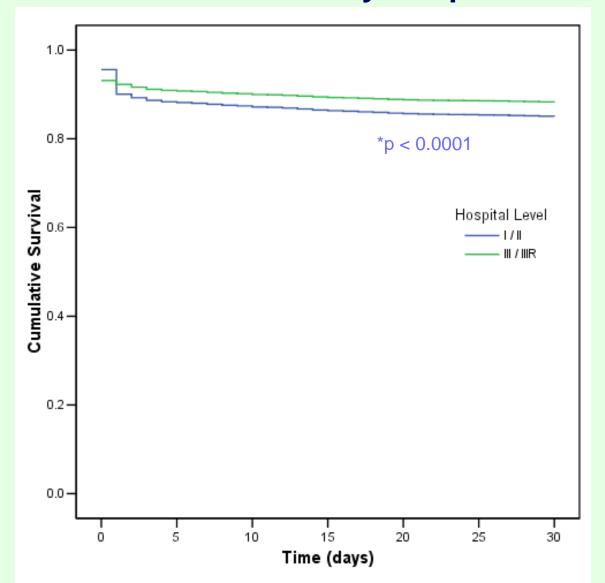
3 times as likely that second will be preterm if spacing < 12 months

Black women 60% more likely than White

No association with Prenatal care entry or adequacy

No association with Medicaid

Survival Time Distributions of VLBW Births in the Neonatal Period by Hospital Level, LA, 2000-2005



VLBW deliveries in Level III

Year	N	%				
All Races						
2005	1153	86.8				
2006	1194	88.4				
2007	1246	87.8				
White						
2005	424	88.7				
2006	431	90.0				
2007	417	88.4				
Black						
2005	707	85.5				
2006	734	87.5				
2007	806	87.4				

^{*}Controlling for race and birth weight category (250 g increments)

Summary

- Infant Mortality may be declining
- Racial disparity remains- black women over twice as likely to experience infant death; race-specific trends must be monitored
- Preterm birth is leading cause of infant death
- Preconception health plays important role
- Pregnancy intention and spacing important
- Neonatal levels of care should be monitored

Data Available

- Perinatal Periods of Risk
- Insurance/Medicaid deliveries / outcomes
- VLBW by Hospital Level of Care
- STD/HIV during pregnancy
- Newborn Screening
- Fetal deaths

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Louisiana Rankings

Indicator	US	Louisiana	Rank	Other info
IMR	6.69	9.92	49	HP 2010 ≤ 4.5 per 1,000
IMR – white	5.56	6.21	39	HI doesn't report
IMR – black	13.29	15.82	29 of 35	Not all states report
PTB	12.8	16.4	47	HP $2010 \le 7.6\%$
LBW	8.3	11.4	49	HP 2010 ≤ 5.0%
VLBW	1.5	2.1	49	HP $2010 \le 0.9\%$
1st trimester PNC entry		87.0	4 of 32	HP 2010 > 90%
Teen birth rate (15-19)	41.9	53.9	40	
Teen birth rate (15-17)	22.0	28.2	42	
Teen birth rate (18-19)	73.0	90.8	37	